NOTIFICATION OF ADDENDUM

ADDENDUM NO. 1

DATED 4/26/2011

Control	**6225-16-001**
Project	**RMC - 622516001**
Highway	**IH0035**
County	**BEXAR**

Ladies/Gentlemen:

Attached please find an addendum on the above captioned project. Included in the attachment is an adendum notification which details the changes and the respective proposal pages which were added and/ or changed.

Except for new bid insert pages, it is unnecessary to return any of the pages attached.

Bid insert pages must be returned with the bid proposal submitted to the Department, unless your firm is submitting a bid using a computer print out. The computer print out must be changed to reflect the new bid item information.

Contractors and material suppliers, etc. who have previously been furnished informational proposals are not being furnished a copy of the addendum. If you have a subcontractor on the above project, please advise them of this addendum. Acknowledgment of this addendum is not requested if your company has been issued a proposal stamped “This Proposal Issued for Informational Purposes.”

You are required to acknowledge receipt of this addendum on the Addendum Acknowledgement form contained in your bid proposal by placing a mark in the box next to the respective addendum.

Failure to Acknowledge receipt of this addendum in your bid proposal will result in your bid not being read.

04/99

SUBJECT: PLANS AND PROPOSAL ADDENDUMS
PROJECT: RMC - 622516001 CONTROL: 6225-16-001
COUNTY: BEXAR
LETTING: 05/04/2011
REFERENCE NO: 0426

PROPOSAL ADDENDUMS

_ PROPOSAL COVER
X BID INSERTS (SH. NO.: 1-4 THRU 4-4)
X GENERAL NOTES (SH. NO.: SHEETS A - K)
_ SPEC LIST (SH. NO.:)
_ SPECIAL PROVISIONS:
ADDED:

DELETED:

_ SPECIAL SPECIFICATIONS:
ADDED:

DELETED:

_ OTHER:

DESCRIPTION OF ABOVE CHANGES
(INCLUDING PLANS SHEET CHANGES)

REVISIONS TO PLAN SHEETS: 2, 3, 4, 6, 7, 8, 47, 50 & 50A.

REVISIONS TO ALL PAGES OF THE GENERAL NOTES.

REVISED QUANTITES FOR BID ITEMS: 316-2174 & 316-2636.

ADDED BID ITEMS: 666-2048, 666-2087, 666-2102 & 666-2132.

ITEMS WERE ALT 1A, NOW REGULAR BID ITEMS: 3127-2001, 3127-2002 & 3127-2003.

ADDED ALT 1A BID ITEMS: 316-2223 & 316-2542.

WERE REGULAR BID ITEMS, NOW ALT1 BID ITEMS: 342-2002 & 342-2006.

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	316	2174		AGGR(TY-B GR-4 SAC-B) DOLLARS and CENTS	CY	3,120.000	1
1	316	2223		AGGR(TY-PB GR-4 SAC-B) DOLLARS and CENTS	CY	1,763.000	2
1	316	2542		ASPH(AC-15P OR AC-20-5TR OR AC-20XP) DOLLARS and CENTS	GAL	58,164.000	3
	316	2636		ASPH (CHFRS-2P OR CRS-2P) DOLLARS and CENTS	GAL	144,106.000	4
	340	2048	003	D-GR HMA(METH) TY-C SAC-B PG70-22 DOLLARS and CENTS	TON	1,055.000	5
	340	2120	003	D-GR HMA(METH) TY-D SAC-B PG70-22 DOLLARS and CENTS	TON	37,742.000	6
1	342	2002	002	PFC (ASPHALT) PG76-22 DOLLARS and CENTS	TON	824.000	7
1	342	2006	002	PFC (AGGREGATE)(PG76 MIX) SAC-A DOLLARS and CENTS	TON	12,990.000	8
	351	2004		FLEXIBLE PAVEMENT STRUCTURE REPAIR(8") DOLLARS and CENTS	SY	7,485.000	9
	354	2023		PLANE ASPH CONC PAV(0" TO 4") DOLLARS and CENTS	SY	546,780.000	10

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	354	2037		PLANE CONC PAV(0" TO 2") DOLLARS and CENTS	SY	200.000	11
	361	2034		FULL-DEPTH REPAIR CRCP (8"-14") DOLLARS and CENTS	SY	200.000	12
	454	2007		HEADER TYPE EXPANSION JOINT DOLLARS and CENTS	CF	550.000	13
	454	2008		JOINT SEALANT DOLLARS and CENTS	LF	2,000.000	14
	500	2001	005	MOBILIZATION DOLLARS and CENTS	LS	1.000	15
	502	2001	033	BARRICADES, SIGNS AND TRAFFIC HANDLING DOLLARS and CENTS	MO	12.000	16
	662	2001	001	WK ZN PAV MRK NON-REMOV (W) 4" (BRK) DOLLARS and CENTS	LF	63,250.000	17
	662	2004	001	WK ZN PAV MRK NON-REMOV (W) 4" (SLD) DOLLARS and CENTS	LF	94,489.000	18
	662	2032	001	WK ZN PAV MRK NON-REMOV (Y) 4" (SLD) DOLLARS and CENTS	LF	94,489.000	19
	666	2003		REFL PAV MRK TY I (W) 4" (BRK)(100MIL) DOLLARS and CENTS	LF	63,250.000	20

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	666	2012		REFL PAV MRK TY I (W) 4" (SLD)(100MIL) DOLLARS and CENTS	LF	94,489.000	21
	666	2036		REFL PAV MRK TY I (W) 8" (SLD)(100MIL) DOLLARS and CENTS	LF	14,562.000	22
	666	2039		REFL PAV MRK TY I (W) 12"(LNDP)(100MIL) DOLLARS and CENTS	LF	413.000	23
	666	2042		REFL PAV MRK TY I (W) 12"(SLD)(100MIL) DOLLARS and CENTS	LF	1,800.000	24
	666	2048		REFL PAV MRK TY I (W) 24"(SLD)(100MIL) DOLLARS and CENTS	LF	200.000	25
	666	2054		REFL PAV MRK TY I (W) (ARROW) (100MIL) DOLLARS and CENTS	EA	150.000	26
	666	2087		REFL PAV MRK TY I(W) (SYMBOL) (100MIL) DOLLARS and CENTS	EA	25.000	27
	666	2096		REFL PAV MRK TY I (W) (WORD) (100MIL) DOLLARS and CENTS	EA	119.000	28
	666	2102		REF PAV MRK TY I(W)36"(YLD TRI)(100MIL) DOLLARS and CENTS	EA	100.000	29
	666	2111		REFL PAV MRK TY I (Y) 4" (SLD)(100MIL) DOLLARS and CENTS	LF	94,489.000	30
	666	2132		REFL PAV MRK TY I (Y) 24"(SLD)(100MIL) DOLLARS and CENTS	LF	200.000	31

ALT	ITEM-CODE			UNIT BID PRICE ONLY. WRITTEN IN WORDS	UNIT	APPROX QUANTITIES	DEPT USE ONLY
	ITEM NO	DESC CODE	S.P. NO.				
	672	2017	034	REFL PAV MRKR TY II-C-R DOLLARS and CENTS	EA	3,219.000	32
	712	2005		JT/CRCK SEAL (RUBBER-ASPHALT) DOLLARS and CENTS	LMI	719.900	33
	3127	2001		TBPFC (MEMBRANE) DOLLARS and CENTS	GAL	63,011.000	34
	3127	2002		TBPFC (ASPHALT)(PG 76-22) DOLLARS and CENTS	TON	824.000	35
	3127	2003		TBPFC (AGGREGATE)(SAC-A) DOLLARS and CENTS	TON	12,990.000	36
	6834	2001		PORTABLE CHANGEABLE MESSAGE SIGN DOLLARS and CENTS	DAY	200.000	37

`Project Number: RMC 6225-16-001 **Sheet** A

County: Bexar, etc. **Control:** 6225-16-001

Highway: Various

General Notes

Basis of Estimate

========== **Hot Mix Asphalt Pavement** ==========

Material	Location	Rate / Area	Quantity
Type D	Mill & Inlay	220 lbs / 343,109 sy	37,742 tons
Type C or D	Conc. Pvmt Repair	220 lbs / 200 sy	22 tons
Type C	Base Repair Surface	220 lbs / 9591 sy	1055 tons
Type B or C	Base Repair	880 lbs / 7485 sy	3293 tons*
TBPFC Asphalt (94%)		8.5 lbs / 193,882 sy	824 tons
TBPFC Aggregate (6%)		134 lbs / 193,882 sy	12,990 tons
TBPFC Membrane		.325gal/193,882 sy	63,011 gallons

* For Contractor's information only

========== **Surface Treatment Data** ==========

Area = 343,109 sy	
Asphalt – Rate (gal / sy)	0.42 / 1 = 144,106 gal
Aggregate – Type	Type B, Grade 4
Aggregate – Rate (cy / sy)	1 / 110 = 3,120 cy

(Alternate)

========== **PFC** ==========

Type	Material	Rate / Area	Quantity
PFC	Aggregate (Ty A)	134 lbs / 193,880 sy	12,990 tons
PFC	Asphalt (PG 76-22)	8.5 lbs/ 193,880 sy	824 tons

TxDOT Project Supervisor – The project will be managed by:

Michael R. Acosta, P.E.
9320 SE Loop 410
San Antonio, TX 78223
Phone: 210-633-1424

<u> See Special Provision 002-031 for prequalification requirements**</u>**

`Project Number: RMC 6225-16-001 **Sheet** B

County: Bexar, etc. **Control:** 6225-16-001

Highway: Various

This project consists of crack sealing; planing, seal coat and hot mix inlay/overlay; planing and PFC inlay; asphalt pavement repair and concrete pavement repair on various highways in Bexar and Comal County. The majority of this work will be at specific sites as shown in the project plans. There will also be a portion of the project that will be done as callout work. It is intended for all or most of this contract work to be located on controlled access highway main lanes or frontage roads within the following areas:

1) In north Bexar County between Loop 1604 on the north side and US 90 West/IH 10 East. This area includes Loop 1604 and US 90 West/IH 10 East and all highways within these boundaries.
2) In south Bexar County between IH 410 on the south side and US 90 West/IH 10 East. This includes IH 410 and US 90 W/IH 10 E and all highways within these boundaries.
3) On IH 35 in Comal County.

Other highways in Bexar County outside of these limits may be included as repair work is needed. The location of the work areas for callout work cannot be predetermined and work may occur anywhere within the limits of this contract as shown on the plans. A callout work order will include the location of each repair, the bid items for the repairs and the approximate quantity of work to be performed. Time charges on each callout work order shall begin 7 calendar days from the callout work order date.

Each contract awarded by the Department stands on its own and as such, is separate from other contracts. A contractor awarded multiple contracts, must be capable and sufficiently staffed to concurrently process any or all contracts at the same time.

Notify the Engineer's representative by telephone each morning by 7:30 a.m. that work is scheduled, with work location and time of arrival or reason for not working that day.

Work on this contract will include site specific work and non-site specific work. Separate work orders will be issued for site specific flexible pavement structure repair and mill and inlay/overlay work; for site specific crack sealing work; and for non-site specific callout work. Once work has started, continuously prosecute the work until all work on each work order is satisfactorily completed. Liquidated Damages will be assessed for any day charged beyond the authorized time on each work order.

Bridge header joint repair work will be included with work order for mill & inlay/overlay work, as needed.

Work at the sites shown specifically in the plans, including crack sealing work, is to be completed within 130 working days from the notice to proceed. Crack sealing work is to be performed within the dates shown in Item 712.

All site-specific PFC paving work will be done at the beginning of the contract. Unless otherwise directed.

County: Bexar, etc. **Control:** 6225-16-001

Highway: Various

Non-site specific work will occur after the completion of the site specific work unless a critical need requires otherwise.

Site specific and non-site specific work locations may include small work quantities at freeway interchanges, multilane intersections, bridge approaches and departures, etc. There is no specific limit (either maximum or minimum) for quantities on a given work order.

In accordance with Special Provision 008-030, based on the amount of each work order, liquidated damages will be charged for each work order according to the following:

For Amount of Work Order		**Amount of Daily Contract Administration Liquidated Damages per Working Day**
From More Than	**To and Including**	
$0	100,000	**425**
100,000	500,000	**500**
500,000	1,000,000	**525**
1,000,000	2,000,000	**625**
2,000,000	5,000,000	**800**
5,000,000	10,000,000	**1100**
10,000,000	15,000,000	**1400**
15,000,000	25,000,000	**1550**
25,000,000	Over 25,000,000	**2800**

Contractor shall submit a work schedule for approval prior to beginning work.

Item 2 "Instructions to Bidders"

This project includes plan sheets that are not part of the bid proposal.

View plans on-line or download from the web at:
http://www.dot.state.tx.us/business/plansonline/plansonline.htm.
Order plans from any of the plan reproduction companies shown on the web at:
http://www.dot.state.tx.us/gsd/plans/companies.htm .

Item 5 "Control of Work"

Contact TxDOT Transguide Maintenance at 210-731-5131 to determine/verify the location of loop detectors, conduit, ground boxes, etc. Any ITS equipment damaged by the Contractor will be repaired or replaced by the Contractor at their expense by a pre-approved method.

Contact TxDOT @ 210-615-5975 or City of San Antonio Signal Operations Office @ 210-207-7965, when construction operations are within 400 feet of a signalized intersection to determine/verify the location of loop detectors, conduit, ground boxes, etc. Signal equipment

damaged by the Contractor will be repaired or replaced by the Contractor at their expense by a pre-approved method.

Item 6 "Control of Materials"

Remove materials or debris within the construction limits not incorporated in the finished roadway section of right of way and dispose of in a manner acceptable to the Engineer at the expense of the Contractor.

If waste areas or material source areas result from this project, the Contractor is reminded to follow the requirements of the Texas Aggregate Quarry and Pit Safety Act. In addition, it is requested that these areas not be visible from any highway on the State system.

Item 7 "Legal Relations and Responsibilities"

The total disturbed areas within the project is anticipated at less than one (1) acre, therefore it is classified as "surface work" consisting of re-surfacing an existing roadway without shoulder-up disturbances. Due to this type of construction, the project qualifies for exclusion under the Construction General Permit (CGP) issued by the Texas Commission on Environmental Quality (TCEQ) on March 5, 2003. However; should the sum of the Engineer's anticipated disturbances and the Contractor's (On ROW and off ROW) PSL's equal or exceed the one (1) acre threshold; both TxDOT and the Contractor have project responsibilities under the CGP that reverts to non-exclusion status. Obtain approval for all non-depicted areas of disturbance that increases the initial soil and vegetation disturbed area estimates before work starts at these locations. Notify the Engineer of the disturbed acreage within one (1) mile of the project limits. Obtain authorization from the TCEQ for Contractor PSL's for construction support activities on or off ROW.

Item 8 "Prosecution and Progress"

Between April 1st and October 31st the Texas Commission on Environmental Quality (TCEQ), is monitoring weather conditions on a daily basis in the San Antonio area to forecast the probability of ozone formation. In the event weather conditions indicate that excessive ozone may occur, the National Weather Service working with the TCEQ will issue an Air Quality Health Alert Day for the following day. TCEQ estimates that approximately 25 Air Quality Health Alert Days might be issued during the ozone formation season.

On Air Quality Health Alert Days, lane closures and the use of small gasoline engines will not be allowed until after 12 noon on all highways inside Loop 1604. TxDOT will notify the Contractor by 4:00 p.m. of the day before the Air Quality Health Alert Day to inform them of the restrictions for the following day and to request their assistance in reducing any other operations that may contribute to an increase in the ozone readings. If these restrictions affect the critical items of work previously scheduled by the Contractor, a working day will not be charged. Time charges on these days will be as determined by the Engineer for each day.

Working days will be computed and charged in accordance with Article 8.3.A.6. Other. Working days will be charged Sunday through Saturday, excluding national or state holidays, if weather or other conditions permit the performance of the principle unit of work underway, as determined by the Engineer, for a period of at least 7 continuous hours. Work on state and national holidays will not be permitted without written permission from the Engineer. If work requiring an inspector is performed on a holiday and weather or other conditions permit the performance of work for 7 continuous hours, a working day will be charged.

Lane Closure Assessment Fees are shown in the plans on the Lane Closures and Assessment Fee Table sheet. The fees apply to the Contractor for closures or obstructions that overlap into restricted hours for each hour or portion thereof, per lane, regardless of the length of the lane closure or obstruction. Unless otherwise shown in the plans, directed or approved, no lane closures will be allowed outside the allowable hours listed in the Lane Closure Assessment Fee Table.

Allowable hours for the closures of freeway ramps and direct connectors shall be as approved by the Engineer. For complete closure of a ramp or direct connector, detour signing must be provided as directed or approved.

Work will not be permitted on holiday weekends and during other major events that TxDOT determines will cause significant traffic congestion, unless otherwise approved.

For pavement repair, remove only the amount of pavement that can be replaced within the same work day.

Before opening highway lanes to traffic, each repair location shall provide a stable driving surface flush with the adjacent pavement.

Item 9 "Measurement and Payment" (Police Officers – Force Account)

As directed or approved, provide uniformed, off-duty law enforcement officers with marked vehicles during work that requires a lane closure. The use and number of police officers with marked vehicles shall be approved by TxDOT at least 48 hours prior to any work day that the use of police officers is proposed for traffic control. No payment shall be made for any unauthorized police officers utilized that do not have prior TxDOT approval. The officer(s) in marked vehicle(s) shall be located as approved to monitor or direct traffic during the closure. The method used to direct traffic at signalized intersections shall be as approved.

Complete the weekly tracking form provided by the department and submit invoices that agree with the tracking form for payment at the end of each month approved services were provided. For reimbursement, the invoice must show the officer's name and badge number, or other form of identification acceptable to the Engineer, and date the police officer was utilized. The department will pay police officers only for the hours actually worked. Cancellation fees, minimums, scheduling fees, etc. will not be paid.

Item 300 "Asphalts, Oils, and Emulsions"

The asphalt binder used in the manufacture of the PFC surface layer shall be PG 76-22.

The asphalt binder used in the manufacture of all other types of hot mix asphalt concrete shall be PG 70-22.

Item 302 "Aggregates for Surface Treatments"

Previously tested aggregates delivered to the project, which are found to contain excessive quantities of dust (more than 0.5 percent passing the No. 4 sieve) during precoating, stockpiling or hauling operations, may be rejected by the Engineer. Test Method Tex-200-F, Part I will be used for testing.

The San Antonio District Laboratory will utilize the Ignition Oven Method (Tex 236-F) for aggregate gradation, with the option of utilizing belt or vacuum extraction gradation in the event the ignition oven malfunctions.

Item 316 "Surface Treatments"

When using latex asphalt, take precautionary measures to avoid drifting of asphalt onto traffic and adjacent properties.

Flux oil or emulsions may be used for precoating LRA and LRA-Trap Rock blends. When emulsions are used as the pre-coat material, the precoated aggregate will be adequately dried . Provide adequate drying and a minimum 30 day curing period before delivery of the aggregates.

Allow for the addition of lime slurry if the aggregates to be precoated are found to have stripping characteristics. If lime is required, add lime meeting the requirements of Item 263 to the aggregate at the rate of 1% hydrated lime by weight of aggregate, and it shall be added in slurry form at the cold feed. The cost of the lime will be considered subsidiary to this Item. The lime slurry will be added at the stockpile, but not more than 24 hours in advance of use.

Ensure that the asphalt used for precoating the aggregate at the plant and the asphalt used for the surface treatment will not result in a reaction that may adversely effect the bonding of the aggregate and asphalt during the surface treatment operation.

The addition of baghouse fines will not be permitted in the production of precoated material.

Mixes that do not maintain flow qualities where the material can not be satisfactorily spread by approved mechanical spreading devices will not be acceptable.

Stockpiles of aggregate precoated with AC may generate excessive heat build-up resulting in damage to the asphalt and/or aggregates if adequate cooling has not been initially provided. Stockpiles showing evidence of heat damage (as determined by the Engineer) can be rejected by the Engineer.

Aggregates used for the final surface shall have a Flakiness Index not to exceed 17 and shall be subjected to 5 cycles of the Soundness Test in accordance with Test Method Tex-411-A. The percent loss shall not be greater than 30 when magnesium sulfate is used. This test will not apply to blends with crushed trap rock, crushed rhyolite, crushed limestone rock asphalt or lightweight aggregate.

Item 340 "Dense Graded Hot-Mix Asphalt (Method)"

Table 6, in Item 340, Hamburg Wheel Test Requirements tested in accordance with Tex-242-F are changed for PG 64-22 or lower and PG 70-22. Minimum number of passes at 0.5" Rut Depth, Tested at 122 degrees F will be 5,000 and 10,000 respectively.

Design all mixture types using a target laboratory-molded density of 96.5%.

The asphalt plant shall have truck scales as defined in Item 520. Give three weight tickets bearing the date, the truck number, the gross, net & tare weights to the truck driver for the State inspector at the spreading and finishing operation. Trucks may be required to weigh on public scales or portable platform scales to verify the weight of the ticket.

Submit a copy of the Tex 233-F production charts on a weekly basis. At the end of the ACP work, provide all originals.

Crushing of aggregate for hot mix and immediate use for production of the mix is not allowed. Stockpile the aggregate until enough material is available for five days of production unless prior approval is provided. Hold a pre-placement meeting one month prior to the placement of the hot mix.

Do not use diesel or solvents as asphalt release agents in production, transportation, or construction. A list of approved asphalt release agents is available from the District Laboratory.

Hot mix asphalt pavement surface courses shall be machine laid with an asphalt paver.

Minimum Roadway Placement Temperature
--Item 340, 342, 344, 346, 3000 & 3001—

Place mixture when the roadway surface temperature is equal to or higher than listed in Table 1 unless otherwise approved or shown on the plans. Measure the roadway surface temperature with a handheld infrared thermometer. Place mixtures only when weather and moisture conditions of the roadway surface are suitable in the opinion of the Engineer.

Table 1
Minimum Pavement Surface Temperatures

		Minimum Pavement Surface Temperatures in Degrees Fahrenheit *	
Specification Item Number	High Temperature Binder Grade	Subsurface Layers or Night Paving Operations	Surface Layers Placed in Daylight Operations
Items 340 & 344	PG 64	45	50
	PG 70	55	60
	PG 76	60	60
Items 342 & 346 SS 3000 & SS 3001	PG 76	65	70
	Asphalt Rubber (A-R)	65	70

Except for PG 64, may pave at temperatures 10° F lower than the values shown in Table 1 when utilizing a paving process or equipment that eliminates thermal segregation. In these cases, use either an infrared bar attached to the paver, or a hand held thermal camera, or a hand held infrared thermometer operated in accordance with Test Method 244-F to demonstrate that the uncompacted mat has no more than 10° F of thermal segregation.

Item 351 "Flexible Pavement Structure Repair"

Maximum lift thickness for compaction of all base courses will not exceed 4 inches.

Exercise caution during repair of existing pavement structure operations to avoid damage to shallow cross drainage structures.

All pavement repair areas excavated during a given work day must be completed through the placement of the surface mix and returned to traffic within that same work day.

Item 354 "Planing and Texturing Pavement"

All planed material will become the property of the contractor.

Take precaution to avoid damage to existing bridge decks and armor joints. Repair any damage to the bridge decks and/or armor joints as approved.

A vacuum truck must be used to pick up loose debris after planing. Sweeping of loose material onto adjacent lanes is not allowed.

Item 361 "Full-Depth Repair of Concrete Pavement"

Provide concrete material meeting the requirement for ultra-rapid repairs as defined by DMS 4655 "Concrete Repair Material."

Dowel and tie bar adhesive shall be Type III, Class A or Class C, in accordance with the special specification for "Epoxy and Adhesives."

Pour concrete flush with surface of adjacent pavement. After all concrete repairs are complete, return to mill and overlay each repair area.

No impact or percussion drilling will be allowed. A core type drill shall be used when reinforcing steel is encountered.

The contractor will be required to perform a pull out test in accordance with test method ASTM E 488. The contractor shall demonstrate this before concrete repair begins.

Traffic may be placed on the repaired area when the concrete reaches a minimum compressive strength of 1,800 psi.

Item 502 "Barricades, Signs, and Traffic Handling"

Furnish and install all signs, barricades and other incidentals necessary for proper traffic control, in accordance with part VI of the "Texas Manual on Uniform Traffic Control Devices for Streets and Highways" and in accordance with the standard plan sheets. Additional devices may be needed to supplement these requirements. All warning signs shall be factory made and in satisfactory condition.

In addition to providing a Contractor's Responsible Person (CRP) and a phone number for emergency contact, have an employee(s) available to respond on the project for emergencies and for taking corrective measures within 30 minutes.

When a Traffic Control Plan (TCP) standard requires the use of one of the following devices, a Type III barricade, channelizing devices or shadow vehicle with orange flags or warning lights, use a shadow vehicle equipped with a Truck Mounted Attenuator (TMA).

Any lane closures will require prior approval. Limit lane closures to a maximum length of one (1) mile. At least 3 days prior to the work, submit for approval a work plan including proposed traffic control, schedule of work and other details. If a lane closure has to be cancelled due to weather or other unforeseen circumstances, immediately notify the inspector and reschedule the lane closure as necessary.

Arrow boards are required. Provide a standby unit in good working condition at the jobsite ready for immediate use.

Item 506 "Temporary Erosion, Sedimentation, and Environmental Controls"

Should erosion control devices become necessary for the project, the SW3P must consist of temporary sediment control fence as directed.

County: Bexar, etc. **Control:** 6225-16-001

Highway: Various

Item 662 "Work Zone Pavement Markings"

Type II pavement markings (paint and beads) will be used as work zone pavement markings in accordance with DMS-8200 (traffic paint) and DMS-8290 (glass traffic beads).

Item 666 "Reflectorized Pavement Markings"

TY I material will be TY B-Alkyd in accordance with DMS-8220.

After the surface has cured a minimum of two (2) calendar days, been cleaned and prepared according to the specifications and as directed, apply Type II markings in accordance with this item, the plans, Texas MUTCD and/or as directed/approved. The thermoplastic (Type I) markings may be applied directly over existing painted pavement markings where applicable.

The thickness of TY I markings for all lines (lane, edge, no passing, etc.) shall be 0.10 inches (100 mils). These thicknesses (not including the thickness of the surface applied glass beads) are required for the fill width and length of the line being placed.

Item 672 "Raised Pavement Markers"

Place all adhesive material directly from the heated dispenser to the pavement. Do not use portable or non-heated containers. Use adhesive of sufficient thickness so that when the marker is pressed into the adhesive, 1/8" or more adhesive will remain under 100% of the marker. The adhesive should extend not less than ½" but not more than 1 ½" beyond the perimeter of the marker.

Item 712 "Cleaning and Sealing Joints and Cracks (Asphalt Concrete)"

Furnish and apply Class B Rubber-Asphalt Sealer in accordance with Item 300.2.H and Item 300.4.B.

Furnish and use fine aggregate in accordance with Item 340.2.A.3. Apply fine aggregate to prevent tracking as directed.

Unless otherwise approved, perform crack sealing during the following season: November 15 to March 15. Begin crack sealing early enough to complete the entire project during the crack sealing season.

The use of 3-inch disk attachments for the wands when applying the sealing compound shall not be allowed. Sealing compound shall be squeegeed as a separate operation.

No payment will be made for areas that exceed the 3-inch width and 1/8-inch depth requirements of a finished band of sealing compound.

Perform demonstration prior to beginning work in each maintenance section to show compliance with the specifications. Demonstration amount shall be a minimum of 50 linear feet. Provide

traffic control for demonstration. Demonstration work must be approved prior to work proceeding. Unacceptable demonstration will require a new demonstration before work can begin.

Place a minimum of twenty (20) lane miles of sealing compound per day.

Refer to Item 712.5 and 712.6 for explanation of measurement and payment for lane miles.

After application of sealing compound, clean roadway of all debris and open to traffic by the time specified.

Equip vehicles with highly visible, omni-directional strobe lights.

Two crews (crack seal pots) working simultaneously are required for this project, unless otherwise approved.

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